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**Response under 37 C.F.R. § 1.116
Expedited Procedure
Examining Group 3724**

PATENT
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of)
Sture SJÖÖ et al.) Confirmation No: 2673
Application No.: 10/589,608) Group Art Unit: 3724
Filed: June 4, 2007) Examiner: Fridie Jr., Willmon
For: SLOT MILLING CUTTER)

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AMENDMENT UNDER 37 CFR § 1.116

Sir:

In response to the Final Office Action dated March 3, 2010, the period for response to which extends through June 3, 2010, entry of the following amendment is respectfully requested to place the application in clear condition for allowance or, alternatively, in better form for appeal.

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AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (Previously Presented): Slot milling cutter, which comprises a cutting head as well as a fastener integrated with the cutting head, the cutting head being provided with at least two insert seats, and cutting inserts being mounted in the insert seats wherein the insert seats are provided with first serrations, that the cutting inserts are provided with second serrations, which are arranged on at least one main surface of the cutting inserts, that the first and second serrations extend in the axial direction of the slot milling cutter, that a stabilization of the cutting insert is effected in the radial direction of the slot milling cutter by co-operation between the first and second serrations, and that adjacent to at least one of the insert seats, means are arranged to apply a force to the appurtenant cutting insert in the axial direction of the slot milling cutter in order to adjust the position of the cutting insert.

Claim 2 (Previously Presented): Slot milling cutter according to claim 1, wherein all insert seats are provided with means to apply a force to the appurtenant cutting inserts in the axial direction of the slot milling cutter.

Claim 3 (Previously Presented): Slot milling cutter according to claim 1, wherein the cutting inserts are provided with serrations on both the main surfaces thereof.

Claim 4 (Previously Presented): Slot milling cutter according to claim 1, wherein the cutting inserts have a negative basic shape, and that the cutting inserts have a positive cutting geometry.

Claim 5 (Currently Amended): Cutting insert for use as a replaceable cutting insert in a slot milling cutter, the cutting insert being mounted in an insert seat of the slot milling cutter, and the cutting insert comprising opposing top and bottom surfaces, either of which is to be in direct contact with the insert seat when mounted and two opposing side surfaces that separate the opposing top and bottom surfaces, wherein at least one of the opposing side surfaces has having at least one a toothed edge [[side,]] and the opposing top and bottom surfaces are each wherein the cutting insert is provided with serrations, which are arranged on both the main surfaces of the cutting insert, and wherein the serrations extend parallel to the at least one opposing side surface having the toothed edge [[side]] of the cutting insert.

Claim 6 (Canceled).

Claim 7 (Previously Presented): Cutting insert according to claim 5 wherein it has a negative basic shape and positive cutting geometry.

Claim 8 (Previously Presented): Cutting insert according to claim 5, wherein each of the opposing side surfaces have a it has two opposed toothed edge [[sides]].

Claim 9 (Previously Presented): Slot milling cutter according to claim 1, wherein the surface of the insert seats provided with first serrations include at least one threaded hole for receiving an at least one screw passing through a through hole in the appurtenant cutting insert to attach the appurtenant cutting insert to the insert seat.

Claim 10 (Previously Presented): Slot milling cutter according to claim 1, wherein the means to apply a force to the appurtenant cutting insert in the axial direction includes a collar attached to the cutting head that moves in the axial direction toward or away from the appurtenant cutting insert.

Claim 11 (Previously Presented): Slot milling cutter according to claim 10, wherein the surface of the insert seats provided with first serrations include at least one threaded hole for receiving an at least one screw passing through a through hole in the appurtenant cutting insert to attach the appurtenant cutting insert to the insert seat.

Claim 12 (Previously Presented): Slot milling cutter according to claim 11, wherein the collar is in direct contact with the appurtenant cutting insert when the appurtenant cutting insert is attached to the insert seat via the at least one screw.

Claim 13 (Previously Presented): Slot milling cutter according to claim 12, wherein the collar moves in the axial direction toward the appurtenant cutting insert when an adjacent set screw is tightened.

Claim 14 (Previously Presented): Slot milling cutter according to claim 1, wherein the means to apply a force to the appurtenant cutting insert in the axial direction is configured to adjust the position of the cutting insert in the axial direction while the first and second serration surfaces remain attached.

REMARKS

Entry of the foregoing and reconsideration of the subject application are respectfully requested in light of the amendments above and the comments which follow.

Claims 1-5 and 7-14 were pending in this application. In this response, claims 5 and 8 are amended and no claim is canceled or added. Thus, claims 1-5 and 7-14 remain pending.

Support for the foregoing amendments can be found, for example, in at least the following locations in the original disclosure: the original claims, Figures 5-7 and the specification, page 6, lines 7-21.

Entry of this Amendment is proper under 37 C.F.R. § 1.116, because the Amendment places the application in condition for allowance for the reasons discussed herein; does not raise any new issue requiring further search and/or consideration, because the amendments amplify issues previously discussed throughout prosecution; does not present any additional claims; and places the application in better form for an appeal should an appeal be necessary. The Amendment is necessary and was not earlier presented, because it is made in response to the Examiner interviews on April 26, 2010 and June 2, 2010. Entry of the Amendment, reexamination and further and favorable reconsideration of the subject application in light of the following remarks, pursuant to and consistent with 37 C.F.R. § 1.116, are thus respectfully requested.

SUMMARY OF EXAMINER INTERVIEW

As an initial matter, Applicants express gratitude to Examiner Fridie for the courtesies extended Applicants' attorney and Mr. Klofver from the assignee Sandvik IP during the recent

interview of April 26, 2010. During the interview, the Examiner explained that main surface is too broad a term. The Examiner further suggested that if claim 5 was amended to further define the location and orientation of the top, bottom and side surfaces and the relationship between the serrations and the toothed cutting edge, then the current rejections will likely be overcome.

Above is an amendment to the claims consistent with discussions with the Examiner as confirmed in a follow up conversation with the Examiner on June 2, 2010.

ALLOWABLE SUBJECT MATTER

Applicants appreciate the indication of allowable subject matter in claims 1-4 and 9-14 as indicated on page 2 of the Official Action.

CLAIM REJECTIONS UNDER 35 U.S.C. §103

Claims 5, 7 and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,913,604 to Zaengerle (hereafter “*Zaengerle*”) in view of U.S. Reissue Patent No. RE. 21068 to Miller (hereafter “*Miller*”) and U.S. Patent No. 4,946,318 to David et al. (hereafter “*David*”) and further in view of WO 2004/062839 to Sakamoto et al. (hereafter “*Sakamoto*”) on the grounds set forth at page 2 of the Office Action.

Claim 5 recites “wherein at least one of the opposing side surfaces has a toothed edge and the opposing top and bottom surfaces are each provided with serrations and wherein the serrations extend parallel to the at least one opposing side surface having the toothed edge of the cutting insert.” None of the cited references disclose at least this combination of elements.

Further, there is no expectation of success from the combination of the cited references at least because each reference teaches away from the combination of elements of claim. “[I]t can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.” *KSR*, 82 USPQ2d at 1396.

Specifically, *Zaengerle* requires an insert to have certain characteristics in order to fit into the pocket of the tool as designed. The insert in *Zaengerle* is held in the pocket by a screw exerting force downward and into the pocket (see, e.g., col. 7, ll. 45-55). If the insert of *Zaengerle* were modified to include parallel serrations on both the opposing top and bottom surfaces, then the insert would be unable to be forced back into the pocket as required by *Zaengerle*. Further, there would have been no expectation of success in adding serrations on the top and bottom surfaces of *Zaengerle*, at least because it is too difficult and not feasible to add complementary serrations to the pocket. The pocket of *Zaengerle* is a cut out element of the holder, and thus it would have been difficult to form grooves in the pocket surface that would have corresponded to the proposed serrations.

Further, *Miller* cannot have serrations on both the top and bottom surfaces. In *Miller*, the insert is held in place by a wedge block sliding along the top surface of the insert, in order to wedge the insert into place. If there were serrations parallel to the cutting side surface on both the top and bottom surfaces there would have been no way for the wedge block to slide perpendicular to the serrations. Thus, there would have been no way for the wedge block to slide, and wedge the insert in place as described by *Miller*.

Further, the serrations on the top and bottom surfaces of *Sakamoto* are required to be perpendicular to the cutting edge. If the serrations were modified to be parallel to the cutting edge, then the insert would not be able to slide into the pocket. Furthermore, *Sakamoto* is a stationery tool during cutting while *Zaengerle* and *Miller* are rotary tools that rotate during cutting operations. Therefore, *Sakamoto* is designed for completely different forces than the *Zaengerle* and *Miller*, and thus there would have been no reason to mix and match the designs.

It is further noted that *David* provides none of the elements discussed above and recited in claim 5. Specifically, the insert of *David* fails to disclose serrations on any surface or a toothed edge.

For at least the above reasons, none of the cited references alone or in combination establish a *prima facie* case of obviousness for claim 5. Dependent claims 7-8, which depend from claim 5, are also not obvious for at least the reasons for claim 5. Accordingly, Applicants respectfully request withdrawal of the rejections.

CONCLUSION

From the foregoing, further and favorable action in the form of a Notice of Allowance is earnestly solicited. Should the Examiner feel that any issues remain, it is requested that the undersigned be contacted so that any such issues may be adequately addressed and prosecution of the instant application expedited.

Respectfully submitted,

DRINKER, BIDDLE & REATH LLP

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